جامعة مصر للعلوم و التكنولوجيا
كلية الطب البشري
قسم علم الطفيليات

Visceral Larva Migrans
Ocular Larva Migrans
Toxocariasis

VLM, OLM

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Definition

- It is a syndrome caused by migration of nematode **larvae** in tissue of human host e.g. *Toxocara canis* and *T. cati* in human body.

Geographical distribution: cosmopolitan

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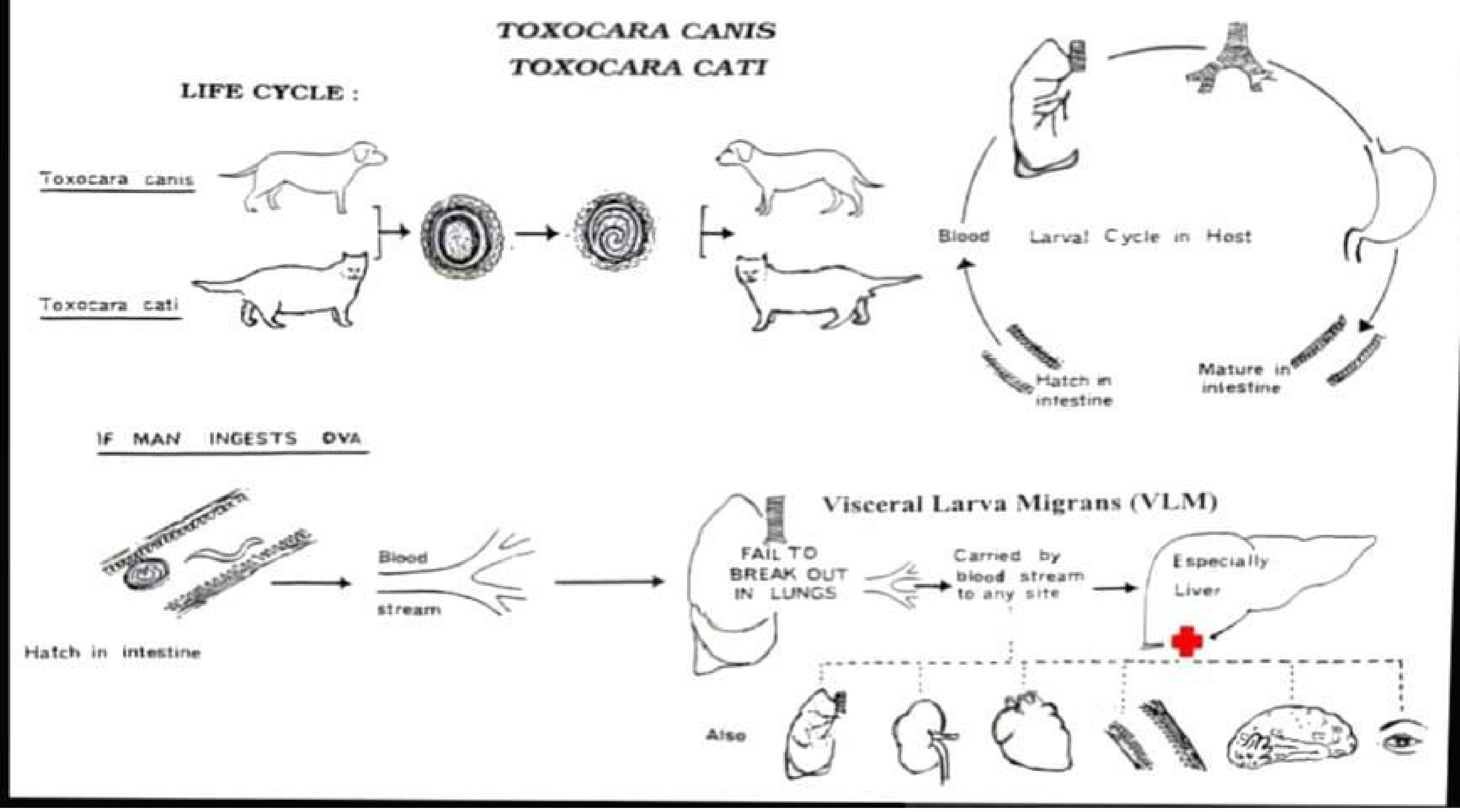
Life cycle of *Toxocara canis* and *cati*
Dog and cat ascarids



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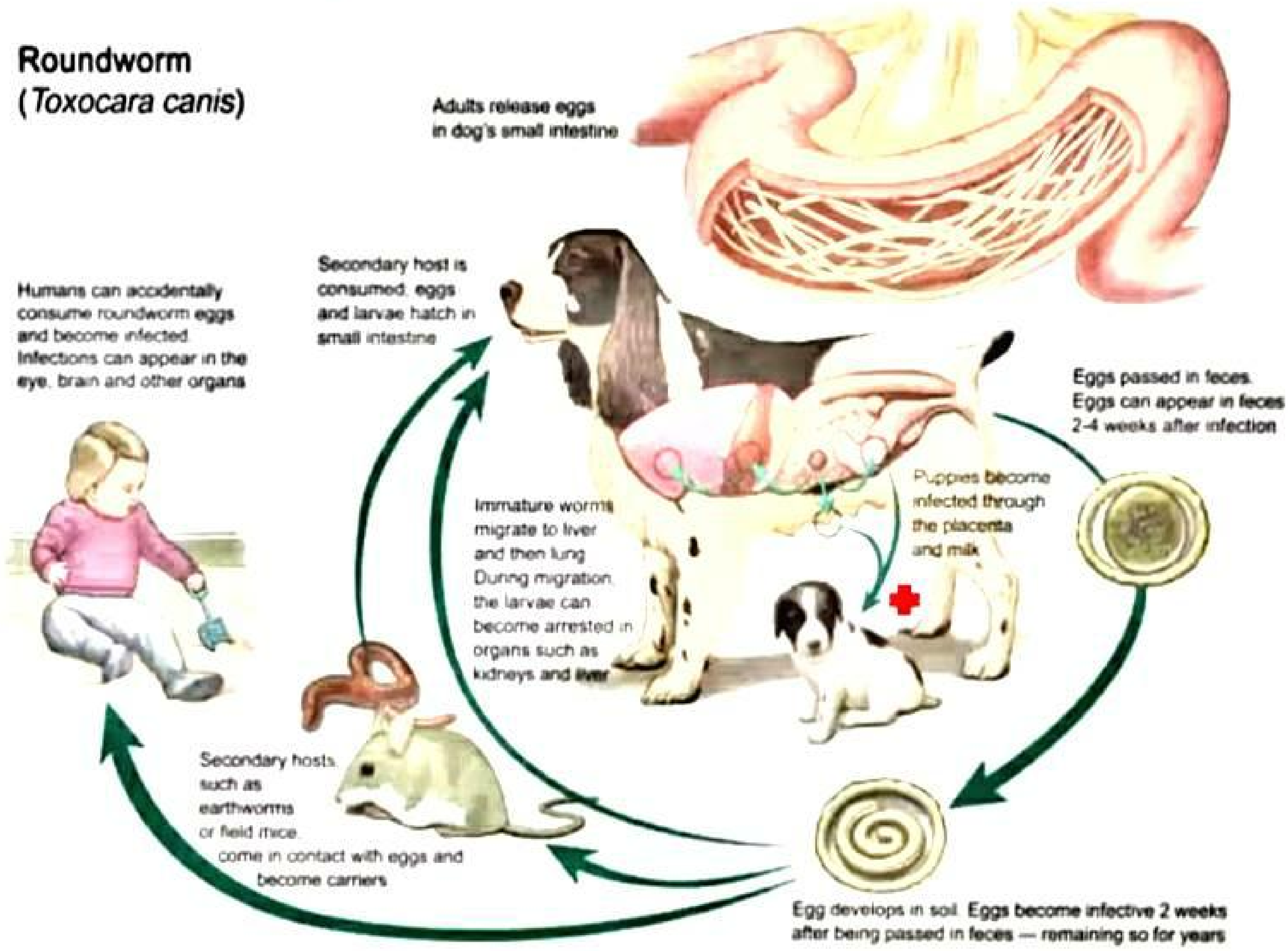
Life cycle of *Toxocara canis* and *cati*



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In the life cycle

- **DH:** dogs and cats
- Pregnant and lactating dogs act as **paratenic hosts** as larvae pass through placenta and milk to the off-spring infecting them
- Human is **accidental and end intermediate host** .

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Pathogenesis and C/P

- The larvae settle in different tissues; usually the liver in children and the eye (OLM)and S.C. tissue in adults; surrounded by granulomatous reaction.
- May be asymptomatic or according to the affected site in heavy infection.
- **Triad of eosinophilia, hepatomegaly and hyperglobulinaemia in a child who plays in contaminated soil is suggestive.**
- Fever, pneumonitis, cough

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Pathogenesis and C/P

- Neurological manifestations
- Subcutaneous nodules
- Endophthalmitis

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Mode of human infection

- Infection occurs accidentally on ingestion of **infective embryonated eggs** through contaminated food or drink, contaminated hands with infected soil and **eating pica** (infected soil or mud) by **young children.**

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Lab Diagnosis

- CBC: eosinophilia
- Hyperglobulinaemia
- Direct: Tissue biopsy to visualize the larvae
- Indirect: ELISA and IB using excretory secretory antigen

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Treatment

- It depends on the clinical presentation of the condition.

1. Albendazole: It is the drug of choice (DOC) Dose: taken over a period of 5 days in a dose of 400 mg twice daily for adult and half dose for children
2. Laser photocoagulation in OLM
3. Corticosteroids: Are important to alleviate the hypersensitivity reaction due to dead larvae. Health education: clean food, washing hands, avoid playing in contaminated soil, deworming of pet dogs twice a year

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Prevention and control

- Health education: clean food, washing hands, avoid playing in contaminated soil, deworming of pet dogs twice a year

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